

SEQUENCE LISTING

<110> Matti Sallberg

<120> LIGAND/RECEPTOR SPECIFICITY EXCHANGERS
THAT REDIRECT ANTIBODIES TO RECEPTORS ON A PATHOGEN

<130> TRIPEP.007CP3C1

<150> 09/664,945

<151> 2000-09-19

<150> 09/532,106

<151> 2000-03-21

<150> 09/246,258

<151> 1999-02-08

<150> 08/737,085

<151> 1996-12-27

<150> PCT/SE 95/00468

<151> 1995-04-27

<150> SE 9401460

<151> 1994-04-28

<160> 105

<170> FastSEQ for Windows Version 4.0

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<212> PRT

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<223> Specificity domain peptide

<400> 1

Tyr Gly Glu Gly Gln Gln His His Leu Gly Gly Ala Lys Gln Ala Gly

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15

Asp Val

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<220>

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<400> 2
 Met Ser Trp Ser Leu His Pro Arg Asn Leu Ile Leu Tyr Phe Tyr Ala
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 Leu Leu Phe Leu
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<400> 3
 Ile Leu Tyr Phe Tyr Ala Leu Leu Phe Leu Ser Thr Cys Val Ala Tyr
 1 5 10 15
 Val Ala Thr

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<400> 4
 Ser Ser Thr Cys Val Ala Tyr Val Ala Thr Arg Asp Asn Cys Cys Ile
 1 5 10 15
 Leu Asp Glu Arg
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<400> 5
 Arg Asp Asn Cys Cys Ile Leu Asp Glu Arg Phe Gly Ser Tyr Cys Pro
 1 5 10 15
 Thr Thr Cys Gly
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<400> 6
Phe Gly Ser Tyr Cys Pro Thr Thr Cys Gly Ile Ala Asp Phe Leu Ser
1 5 10 15
Thr Tyr Gln Thr
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<400> 7
Ile Ala Asp Phe Leu Ser Thr Tyr Gln Thr Lys Val Asp Lys Asp Leu
1 5 10 15
Gln Ser Leu Glu
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<210> 8
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<400> 8
Lys Val Asp Lys Asp Leu Gln Ser Leu Glu Asp Ile Leu His Gln Val
1 5 10 15
Glu Asn Lys Thr
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<210> 9
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<400> 9
Asp Ile Leu His Gln Val Glu Asn Lys Thr Ser Glu Val Lys Gln Leu
1 5 10 15
Ile Lys Ala Ile

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<400> 10

Ser Glu Val Lys Gln Leu Ile Lys Ala Ile Gln Leu Thr Tyr Asn Pro

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Asp Glu Ser Ser

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<400> 11

Gln Leu Thr Tyr Asn Pro Asp Glu Ser Ser Lys Pro Asn Met Ile Asp

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Ala Ala Thr Leu

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<400> 12

Lys Pro Asn Met Ile Asp Ala Ala Thr Leu Lys Ser Arg Ile Met Leu

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Glu Glu Ile Met

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<210> 13

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<400> 13

Lys Ser Arg Ile Met Leu Glu Glu Ile Met Lys Tyr Glu Ala Ser Ile
1 5 10 15
Leu Thr His Asp
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<400> 14

Lys Tyr Glu Ala Ser Ile Leu Thr His Asp Ser Ser Ile Arg Tyr Leu
1 5 10 15
Gln Glu Ile Tyr
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<400> 15

Ser Ser Ile Arg Tyr Leu Gln Glu Ile Tyr Asn Ser Asn Asn Gln Lys
1 5 10 15
Ile Val Asn Leu
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<400> 16

Asn Ser Asn Asn Gln Lys Ile Val Asn Leu Lys Glu Lys Val Ala Gln
1 5 10 15
Leu Glu Ala Gln
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 <400> 17
 Cys Gln Glu Pro Cys Lys Asp Thr Val Gln Ile His Asp Ile Thr Gly
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 Lys Asp Cys Gln
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<400> 18
 Ile His Asp Ile Thr Gly Lys Asp Cys Gln Asp Ile Ala Asn Lys Gly
 1 5 10 15
 Ala Lys Gln Ser
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<210> 19
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<400> 19
 Asp Ile Ala Asn Lys Gly Ala Lys Gln Ser Gly Leu Tyr Phe Ile Lys
 1 5 10 15
 Pro Leu Lys Ala
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<210> 20
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<400> 20
 Gly Leu Tyr Phe Ile Lys Pro Leu Lys Ala Asn Gln Gln Phe Leu Val
 1 5 10 15
 Tyr Cys Glu Ile

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<400> 21
 Asn Gln Gln Phe Leu Val Tyr Cys Glu Ile Asp Gly Ser Gly Asn Gly
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 Trp Thr Val Phe
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<210> 22
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<400> 22
 Asp Gly Ser Gly Asn Gly Trp Thr Val Phe Gln Lys Arg Leu Asp Gly
 1 5 10 15
 Ser Val Asp Phe
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<210> 23
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<400> 23
 Gln Lys Arg Leu Asp Gly Ser Val Asp Phe Lys Lys Asn Trp Ile Gln
 1 5 10 15
 Tyr Lys Glu Gly
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<210> 24
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<400> 24

Lys Lys Asn Trp Ile Gln Tyr Lys Glu Gly Phe Gly His Leu Ser Pro
1 5 10 15
Thr Gly Thr Thr
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<210> 25

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<212> PRT

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<400> 25

Phe Gly His Leu Ser Pro Thr Gly Thr Thr Glu Phe Trp Leu Gly Asn
1 5 10 15
Glu Lys Ile His
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<223> Specificity domain peptide

<400> 26

Glu Phe Trp Leu Gly Asn Glu Lys Ile His Leu Ile Ser Thr Gln Ser
1 5 10 15
Ala Ile Pro Tyr
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<210> 27

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<400> 27

Leu Ile Ser Thr Gln Ser Ala Ile Pro Tyr Ala Leu Arg Val Glu Leu
1 5 10 15
Glu Asp Trp Asn
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<210> 28

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 <400> 28
 Ala Leu Arg Val Glu Leu Glu Asp Trp Asn Gly Arg Thr Ser Thr Ala
 1 5 10 15
 Asp Tyr Ala Met
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 <400> 29
 Gly Arg Thr Ser Thr Ala Asp Tyr Ala Met Phe Lys Val Gly Pro Glu
 1 5 10 15
 Ala Asp Lys Tyr
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 <400> 30
 Phe Lys Val Gly Pro Glu Ala Asp Lys Tyr Arg Leu Thr Tyr Ala Tyr
 1 5 10 15
 Phe Ala Gly Gly
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<210> 31
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 <400> 31
 Arg Leu Thr Tyr Ala Tyr Phe Ala Gly Gly Asp Ala Gly Asp Ala Phe
 1 5 10 15
 Asp Gly Phe Asp

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<400> 32
 Asp Ala Gly Asp Ala Phe Asp Gly Phe Asp Phe Gly Asp Asp Pro Ser
 1 5 10 15
 Asp Lys Phe Phe
 20

<210> 33
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<400> 33
 Phe Gly Asp Asp Pro Ser Asp Lys Phe Phe Thr Ser His Asn Gly Met
 1 5 10 15
 Gln Phe Ser Thr
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<400> 34
 Thr Ser His Asn Gly Met Gln Phe Ser Thr Trp Asp Asn Asp Asn Asp
 1 5 10 15
 Lys Phe Glu Gly
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<400> 35
 Trp Asp Asn Asp Asn Asp Lys Phe Glu Gly Asn Cys Ala Glu Gln Asp
 1 5 10 15
 Gly Ser Gly Trp
 20

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<400> 36
 Asn Cys Ala Glu Gln Asp Gly Ser Gly Trp Trp Met Asn Lys Cys His
 1 5 10 15
 Ala Gly His Leu
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<400> 37
 Trp Met Asn Lys Cys His Ala Gly His Leu Asn Gly Val Tyr Tyr Gln
 1 5 10 15
 Gly Gly Thr Tyr
 20

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<400> 38
 Asn Gly Val Tyr Tyr Gln Gly Gly Thr Tyr Ser Lys Ala Ser Thr Pro
 1 5 10 15
 Asn Gly Tyr Asp
 20

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<400> 39
Ser Lys Ala Ser Thr Pro Asn Gly Tyr Asp Asn Gly Ile Ile Trp Ala
1 5 10 15
Thr Trp Lys Thr
20

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<400> 40
Asn Gly Ile Ile Trp Ala Thr Trp Lys Thr Arg Trp Tyr Ser Met Lys
1 5 10 15
Lys Thr Thr Met
20

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<400> 41
Arg Trp Tyr Ser Met Lys Lys Thr Thr Met Lys Ile Ile Pro Phe Asn
1 5 10 15
Arg Leu Thr Ile
20

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Lys Ile Ile Pro Phe Asn Arg Leu Thr Ile Gly Glu Gly Gln Gln His
1 5 10 15
His Leu Gly Gly Ala Lys Gln Ala Gly Asp Val

<210> 43
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<400> 43
 Gly Leu Tyr Ser Ser Ile Trp Leu Ser Pro Gly Arg Ser Tyr Phe Glu
 1 5 10 15
 Thr

<210> 44
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<400> 44
 Tyr Thr Asp Ile Lys Tyr Asn Pro Phe Thr Asp Arg Gly Glu Gly Asn
 1 5 10 15
 Met

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<400> 45
 Asp Gln Asn Ile His Met Asn Ala Arg Leu Leu Ile Arg Ser Pro Phe
 1 5 10 15
 Thr

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<400> 46

Leu Ile Arg Ser Pro Phe Thr Asp Pro Gln Leu Leu Val His Thr Asp
1 5 10 15
Pro

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<400> 47

Gln Lys Glu Ser Leu Leu Phe Pro Pro Val Lys Leu Leu Arg Arg Val
1 5 10 15
Pro

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<400> 48

Pro Ala Leu Thr Ala Val Glu Thr Gly Ala Thr
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<400> 49

Ser Thr Leu Val Pro Glu Thr Thr
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Thr Pro Pro Ala Tyr Arg Pro Pro Asn Ala Pro Ile Leu
1 5 10

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<400> 51

Glu Ile Pro Ala Leu Thr Ala Val Glu
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<400> 52

Leu Glu Asp Pro Ala Ser Arg Asp Leu Val
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His Arg Gly Gly Pro Glu Glu Phe
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<400> 54

His Arg Gly Gly Pro Glu Glu
1 5

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<212> PRT

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<400> 55

Val Leu Ile Cys Gly Glu Asn Thr Val Ser Arg Asn Tyr Ala Thr His

1

5

10

15

Ser

<210> 56

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Antigenic domain peptide

<400> 56

Lys Ile Asn Thr Met Pro Pro Phe Leu Asp Thr Glu Leu Thr Ala Pro

1

5

10

15

Ser

<210> 57

<211> 17

<212> PRT

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<220>

<223> Antigenic domain peptide

<400> 57

Pro Asp Glu Lys Ser Gln Arg Glu Ile Leu Leu Asn Lys Ile Ala Ser

1

5

10

15

Tyr

<210> 58

<211> 17

<212> PRT

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<400> 58

Thr Ala Thr Thr Thr Thr Tyr Ala Tyr Pro Gly Thr Asn Arg Pro Pro
1 5 10 15
Val

<210> 59

<211> 8

<212> PRT

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<220>

<223> Antigenic domain peptide

<400> 59

Ser Thr Pro Leu Pro Glu Thr Thr
1 5

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<212> PRT

<213> Artificial Sequence

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<223> Ligand/Receptor specificity exchanger peptide

<400> 60

Tyr Gly Glu Gly Gln Gln His His Leu Gly Gly Ala Lys Gln Ala Gly
1 5 10 15
Asp Val His Arg Gly Gly Pro Glu Glu Phe
20 25

<210> 61

<211> 25

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<213> Artificial Sequence

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<223> Ligand/Receptor specificity exchanger peptide

<400> 61

Tyr Gly Glu Gly Gln Gln His His Leu Gly Gly Ala Lys Gln Ala Gly
1 5 10 15
Asp Val His Arg Gly Gly Pro Glu Glu
20 25

<210> 62

<211> 26

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<223> Ligand/Receptor specificity exchanger peptide

<400> 62

Tyr	Gly	Glu	Gly	Gln	Gln	His	His	Leu	Gly	Gly	Ala	Lys	Gln	Ala	Gly
1				5					10					15	
Asp	Val	Ser	Thr	Pro	Leu	Pro	Glu	Thr	Thr						
			20					25							

<210> 63

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<223> Ligand/Receptor specificity exchanger peptide

<400> 63

Met	Ser	Trp	Ser	Leu	His	Pro	Arg	Asn	Leu	Ile	Leu	Tyr	Phe	Tyr	Ala
1				5				10						15	
Leu	Leu	Phe	Leu	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 64

<211> 26

<212> PRT

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<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 64

Ile	Leu	Tyr	Phe	Tyr	Ala	Leu	Leu	Phe	Leu	Ser	Thr	Cys	Val	Ala	Tyr
1				5				10						15	
Val	Ala	Thr	His	Arg	Gly	Gly	Pro	Glu	Glu						
			20					25							

<210> 65

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<212> PRT

<213> Artificial Sequence

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<223> Ligand/Receptor specificity exchanger peptide

<400> 65

Ser	Ser	Thr	Cys	Val	Ala	Tyr	Val	Ala	Thr	Arg	Asp	Asn	Cys	Cys	Ile
1				5				10						15	
Leu	Asp	Glu	Arg	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 66
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<400> 66
Arg Asp Asn Cys Cys Ile Leu Asp Glu Arg Phe Gly Ser Tyr Cys Pro
1 5 10 15
Thr Thr Cys Gly His Arg Gly Gly Pro Glu Glu
20 25

<210> 67
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<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 67
Phe Gly Ser Tyr Cys Pro Thr Thr Cys Gly Ile Ala Asp Phe Leu Ser
1 5 10 15
Thr Tyr Gln Thr His Arg Gly Gly Pro Glu Glu
20 25

<210> 68
<211> 27
<212> PRT
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<223> Ligand/Receptor specificity exchanger peptide

<400> 68
Ile Ala Asp Phe Leu Ser Thr Tyr Gln Thr Lys Val Asp Lys Asp Leu
1 5 10 15
Gln Ser Leu Glu His Arg Gly Gly Pro Glu Glu
20 25

<210> 69
<211> 27
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<400> 69
 Lys Val Asp Lys Asp Leu Gln Ser Leu Glu Asp Ile Leu His Gln Val
 1 5 10 15
 Glu Asn Lys Thr His Arg Gly Gly Pro Glu Glu
 20 25

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<400> 70
 Asp Ile Leu His Gln Val Glu Asn Lys Thr Ser Glu Val Lys Gln Leu
 1 5 10 15
 Ile Lys Ala Ile His Arg Gly Gly Pro Glu Glu
 20 25

<210> 71
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<400> 71
 Ser Glu Val Lys Gln Leu Ile Lys Ala Ile Gln Leu Thr Tyr Asn Pro
 1 5 10 15
 Asp Glu Ser Ser His Arg Gly Gly Pro Glu Glu
 20 25

<210> 72
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<400> 72
 Gln Leu Thr Tyr Asn Pro Asp Glu Ser Ser Lys Pro Asn Met Ile Asp
 1 5 10 15
 Ala Ala Thr Leu His Arg Gly Gly Pro Glu Glu
 20 25

<210> 73
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<400> 73

Lys	Pro	Asn	Met	Ile	Asp	Ala	Ala	Thr	Leu	Lys	Ser	Arg	Ile	Met	Leu
1				5					10					15	
Glu	Glu	Ile	Met	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 74

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<223> Ligand/Receptor specificity exchanger peptide

<400> 74

Lys	Ser	Arg	Ile	Met	Leu	Glu	Glu	Ile	Met	Lys	Tyr	Glu	Ala	Ser	Ile
1				5					10					15	
Leu	Thr	His	Asp	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 75

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<223> Ligand/Receptor specificity exchanger peptide

<400> 75

Lys	Tyr	Glu	Ala	Ser	Ile	Leu	Thr	His	Asp	Ser	Ser	Ile	Arg	Tyr	Leu
1				5					10					15	
Gln	Glu	Ile	Tyr	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 76

<211> 27

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<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 76

Ser	Ser	Ile	Arg	Tyr	Leu	Gln	Glu	Ile	Tyr	Asn	Ser	Asn	Asn	Gln	Lys
1				5					10					15	
Ile	Val	Asn	Leu	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 77
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<223> Ligand/Receptor specificity exchanger peptide

<400> 77
Asn Ser Asn Asn Gln Lys Ile Val Asn Leu Lys Glu Lys Val Ala Gln
1 5 10 15
Leu Glu Ala Gln His Arg Gly Gly Pro Glu Glu
20 25

<210> 78
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<212> PRT
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<223> Ligand/Receptor specificity exchanger peptide

<400> 78
Cys Gln Glu Pro Cys Lys Asp Thr Val Gln Ile His Asp Ile Thr Gly
1 5 10 15
Lys Asp Cys Gln His Arg Gly Gly Pro Glu Glu
20 25

<210> 79
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<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 79
Ile His Asp Ile Thr Gly Lys Asp Cys Gln Asp Ile Ala Asn Lys Gly
1 5 10 15
Ala Lys Gln Ser His Arg Gly Gly Pro Glu Glu
20 25

<210> 80
<211> 27
<212> PRT
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<223> Ligand/Receptor specificity exchanger peptide

<400> 80

Asp Ile Ala Asn Lys Gly Ala Lys Gln Ser Gly Leu Tyr Phe Ile Lys
1 5 10 15
Pro Leu Lys Ala His Arg Gly Gly Pro Glu Glu
20 25

<210> 81

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<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 81

Gly Leu Tyr Phe Ile Lys Pro Leu Lys Ala Asn Gln Gln Phe Leu Val
1 5 10 15
Tyr Cys Glu Ile His Arg Gly Gly Pro Glu Glu
20 25

<210> 82

<211> 27

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<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 82

Asn Gln Gln Phe Leu Val Tyr Cys Glu Ile Asp Gly Ser Gly Asn Gly
1 5 10 15
Trp Thr Val Phe His Arg Gly Gly Pro Glu Glu
20 25

<210> 83

<211> 27

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<223> Ligand/Receptor specificity exchanger peptide

<400> 83

Asp Gly Ser Gly Asn Gly Trp Thr Val Phe Gln Lys Arg Leu Asp Gly
1 5 10 15
Ser Val Asp Phe His Arg Gly Gly Pro Glu Glu
20 25

<210> 84

<211> 27

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<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 84

Gln	Lys	Arg	Leu	Asp	Gly	Ser	Val	Asp	Phe	Lys	Lys	Asn	Trp	Ile	Gln
1			5					10						15	
Tyr	Lys	Glu	Gly	His	Arg	Gly	Gly	Pro	Glu	Glu					
		20						25							

<210> 85

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<223> Ligand/Receptor specificity exchanger peptide

<400> 85

Lys	Lys	Asn	Trp	Ile	Gln	Tyr	Lys	Glu	Gly	Phe	Gly	His	Leu	Ser	Pro
1			5					10					15		
Thr	Gly	Thr	Thr	His	Arg	Gly	Gly	Pro	Glu	Glu					
		20						25							

<210> 86

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<223> Ligand/Receptor specificity exchanger peptide

<400> 86

Phe	Gly	His	Leu	Ser	Pro	Thr	Gly	Thr	Thr	Glu	Phe	Trp	Leu	Gly	Asn
1			5					10					15		
Glu	Lys	Ile	His	His	Arg	Gly	Gly	Pro	Glu	Glu					
		20						25							

<210> 87

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 87

Glu	Phe	Trp	Leu	Gly	Asn	Glu	Lys	Ile	His	Leu	Ile	Ser	Thr	Gln	Ser
1			5					10					15		
Ala	Ile	Pro	Tyr	His	Arg	Gly	Gly	Pro	Glu	Glu					
		20						25							

<210> 88
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 88
Leu Ile Ser Thr Gln Ser Ala Ile Pro Tyr Ala Leu Arg Val Glu Leu
1 5 10 15
Glu Asp Trp Asn His Arg Gly Gly Pro Glu Glu
20 25

<210> 89
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 89
Ala Leu Arg Val Glu Leu Glu Asp Trp Asn Gly Arg Thr Ser Thr Ala
1 5 10 15
Asp Tyr Ala Met His Arg Gly Gly Pro Glu Glu
20 25

<210> 90
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 90
Gly Arg Thr Ser Thr Ala Asp Tyr Ala Met Phe Lys Val Gly Pro Glu
1 5 10 15
Ala Asp Lys Tyr His Arg Gly Gly Pro Glu Glu
20 25

<210> 91
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 91

Phe Lys Val Gly Pro Glu Ala Asp Lys Tyr Arg Leu Thr Tyr Ala Tyr
1 5 10 15
Phe Ala Gly Gly His Arg Gly Gly Pro Glu Glu
20 25

<210> 92

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 92

Arg Leu Thr Tyr Ala Tyr Phe Ala Gly Gly Asp Ala Gly Asp Ala Phe
1 5 10 15
Asp Gly Phe Asp His Arg Gly Gly Pro Glu Glu
20 25

<210> 93

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 93

Asp Ala Gly Asp Ala Phe Asp Gly Phe Asp Phe Gly Asp Asp Pro Ser
1 5 10 15
Asp Lys Phe Phe His Arg Gly Gly Pro Glu Glu
20 25

<210> 94

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 94

Phe Gly Asp Asp Pro Ser Asp Lys Phe Phe Thr Ser His Asn Gly Met
1 5 10 15
Gln Phe Ser Thr His Arg Gly Gly Pro Glu Glu
20 25

<210> 95

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 95

Thr	Ser	His	Asn	Gly	Met	Gln	Phe	Ser	Thr	Trp	Asp	Asn	Asp	Asn	Asp
1			5					10					15		
Lys	Phe	Glu	Gly	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 96

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 96

Trp	Asp	Asn	Asp	Asn	Asp	Lys	Phe	Glu	Gly	Asn	Cys	Ala	Glu	Gln	Asp
1			5					10					15		
Gly	Ser	Gly	Trp	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 97

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 97

Asn	Cys	Ala	Glu	Gln	Asp	Gly	Ser	Gly	Trp	Trp	Met	Asn	Lys	Cys	His
1			5					10					15		
Ala	Gly	His	Leu	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 98

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Ligand/Receptor specificity exchanger peptide

<400> 98

Trp	Met	Asn	Lys	Cys	His	Ala	Gly	His	Leu	Asn	Gly	Val	Tyr	Tyr	Gln
1			5					10					15		
Gly	Gly	Thr	Tyr	His	Arg	Gly	Gly	Pro	Glu	Glu					
			20					25							

<210> 99
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 99
Asn Gly Val Tyr Tyr Gln Gly Gly Thr Tyr Ser Lys Ala Ser Thr Pro
1 5 10 15
Asn Gly Tyr Asp His Arg Gly Gly Pro Glu Glu
20 25

<210> 100
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 100
Ser Lys Ala Ser Thr Pro Asn Gly Tyr Asp Asn Gly Ile Ile Trp Ala
1 5 10 15
Thr Trp Lys Thr His Arg Gly Gly Pro Glu Glu
20 25

<210> 101
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 101
Asn Gly Ile Ile Trp Ala Thr Trp Lys Thr Arg Trp Tyr Ser Met Lys
1 5 10 15
Lys Thr Thr Met His Arg Gly Gly Pro Glu Glu
20 25

<210> 102
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Ligand/Receptor specificity exchanger peptide

<400> 102
 Arg Trp Tyr Ser Met Lys Lys Thr Thr Met Lys Ile Ile Pro Phe Asn
 1 5 10 15
 Arg Leu Thr Ile His Arg Gly Gly Pro Glu Glu
 20 25

<210> 103
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Ligand/Receptor specificity exchanger peptide

<400> 103
 Lys Ile Ile Pro Phe Asn Arg Leu Thr Ile Gly Glu Gly Gln Gln His
 1 5 10 15
 His Leu Gly Gly Ala Lys Gln Ala Gly Asp Val His Arg Gly Gly Pro
 20 25 30
 Glu Glu

<210> 104
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Integrin specific ligand/receptor specificity
 exchanger peptide

<400> 104
 Gly Arg Gly Asp Ser Pro His Arg Gly Gly Pro Glu Glu
 1 5 10

<210> 105
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Integrin specific ligand/receptor specificity
 exchanger peptide

<400> 105
 Trp Ser Arg Gly Asp Trp His Arg Gly Gly Pro Glu Glu
 1 5 10